

(Modified) PTO/SB/08A-B (10-96) Approved for us through 10/31/99. OMB 0651-0031

Substitute for form 1449A-B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

C	omplete if Known
Application Number	100/717419 massaned
Filing Date	November 18, 2000 Unassando
First Nam d Inventor	Phillip A. Patt n
Group Art Unit	Unassign d
Examiner Name	Unassigned
Attorney Docket Number	02 020520US 02-020522US

			U.	S. PATENT DOCUMENTS		
		U.S. Patent Document		Name of Patentee or Applicant of	Date of Publication of	Pages, Columns, lines,
Examiner Initials	Cite No.	Number	Kind Code (if known)	Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appeal
	AA	6,596,548		Stemmer	08-01-2000	
	AB	6,117,679		Stemmer	09-12-2000	
**	AC	6,132,970		Stemmer	10-17-2000	

	Γ	Foreign Patent Document			N PATENT DOCUMENT	Date of Publication	Pages, Columns, Lines,	Т
Examiner Initials	Cite No.	Office	Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	
	AD	wo	98/42832		Cal Tech	10-01-1998		
	AE	wo	98/41653		Novo Nordisk	09-24-1998		<u> </u>
	AF	wo	99/29902		Cal Tech	06-17-1999		

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	т
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	7
	AG	CARTER, "Improved Oligonucleotide-Directed Mutagenesis Using M13 Vectors," Methods in Enzymology,154:382 (1987)	
	АН	KRAMER AND FRITZ, "Oligonucleotide-Directed Construction of Mutations via Gapped Duplex DNA," Methods in Enzymology, 154:350-367 (1987).	
	Al	KUNKEL, "Rapid and efficient site-specific mutagenesis without phenotypic selection," PNAS, 82:488-492 (Jan. 1985).	
	ĄJ	KUNKEL et al., "Rapid and Efficient Site-Specific Mutagenesis without Phenotypic Selection," Methods in Enzymology, 154:367-382 (1987).	
	AK	ZOLLER AND SMITH, "Oligonucleotide-Directed Mutagenesis: A Simple Method using Two Oligonucleotide Primers and a Single-Stranded DNA Template," Methods in Enzymology, 154:329 (1987).	
	AL	PRODROMOU et al., (1992) "Recursive PCR: a novel technique for total gene synthesis." Protein Engineering 5(8): 827-829.	
	AM	Statutory Declaration signed by Ruth Bird as filed in pending Australian opposition case, Australian Application No. 703264.	
	AN	Statutory Declaration signed by Ngaire Pettit-Young as filed in pending Australian opposition case, Australian Application No. 703264.	
	AO	Statutory Declaration signed by Mae Li Gan as filed in pending Australian opposition case, Australian Application No. 703264.	

Examiner	Date	
Signatur	Considered	
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether is not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not consid red. Include copy of this form with n xt communication to applicant.

#### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

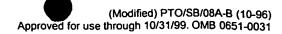
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C	omplete if Known
Application Number	-09/717418 wassigned
Filing Date	Nevember 18, 2000 Wassign od
First Named Inventor	Phillip A. Patt n
Group Art Unit	Unassign d
Examiner Name	Unassigned
Attorney Docket Number	102-020520US 02-020522US

AF	DNA fragments: study of protein and DNA interactions." <u>Nucleis Acids Research</u> 16(15): 7351-7367.
AC	SHI et al., (1993) "Rapid PCR Construction of a Gene Containing Lym-1 Antibody Variable Regions." PCR Methods and Applications 3: 46-53.
AR	SHULDINER, A.R. et al., (1989) "Hybrid DNA artifact from PCR of closely related target sequences," Nuc. Acids Res. 17(11): 4409.
AS	SANDHU, G.S. et al., (1992) "Dual Asymmetric PCR: One-Step Construction of Synthetic Genes," <i>Biotechniques</i> 12(01): 14-16.
AT	Biotransformations, Pathogenesis, and Evolving Biotechnology, Program and Abstracts, Pseudomonas '89, American Society for Microbiology and The University of Illinois, July 9-13, 1989, Abstract Nos. 11-21 – 11-25, p. 26.
AU	SMITH et al. (1991) "Losalized sex in bacteria," Nature, 349: 29-31.
AV	MICHAEL et al., (c. 1997) "Thermostable Ligase-Mediated Incorporation of Mutagenic Oligonucleotides During PCR Amplifications," <i>Methods in Molecular Biology</i> , Vol. 67, PCR Cloning Protocals: From Molecular Colning to Genetic Engineering pp. 189-195.
AW	NER et al. (1988) "Laboratory Methods: A Simple and Efficient Procedure for Generating Random Point Mutations and for Codon Replacements Using Mixed Oligodeoxynucleotides," DNA 7: 127-134.
AX	MERYHANS et al., (1990) "DNA recombination during PCR," Nuc Acids Res. 18(7): 1687-1691.
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ВС	ROUWENDAL et al., (1993) "Simultaneous Mutagenesis of Multiple Sites: Application of the Ugase Chain Reaction Using PCR Products instead of Oligonucleotides." <i>Biotechniques</i> 15(1): 68-70, 72-74, 76.

Examiner	Date	
	Considered	
Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, wheth r or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

C TRADEMAN	Complete if Known
Application Number	-00/709,002 Unassigned
Filing Date	December 18, 1996 Unassigned
First Named Inventor	Phillip A. Patt n
Group Art Unit	1634
Examiner Name	Zitomer, S.
Attorney Docket Number	92-929599US Q2-020522US

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	1	U.S. Patent Do	cument	S. PATENT DOCUMEN  Name of Patentee or Applicant	of Date of Publication of	Pages, Columns, lines,
Examiner Initials	Cite No.	Number	Kind Code (if known)	Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appea
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Examine Signatur					Date Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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INFORMATION DISCLOSURE

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STATEMENT BY APPLICANT

С	omplete if Known
Application Number	-08/769,062 UNOSSIGNED
Filing Date	December 18, 1996 UNASSIBNO
First Named Inventor	Phillip A. Patt n
Group Art Unit	1634
Examiner Name	Zitomer, S.
Attorney Docket Number	-02-020500US 02-020522US

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ВВ	5,955,358		Huse	09-21-1999
ВС	5,965,415		Radman et al.	10-12-1999
BD	6,001,574		Short	12-14-1999
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				FOREIGI	N PATENT DOCUMEN	TS		
	1		Foreign Patent Docu			Date of Publication	Pages, Columns, Lines,	١,
Examiner Initials	Cite No.	Office	Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	Ľ
	BZ	EP	0 544 809	B1	Ixsys, Inc.	12-16-1998		_
	CA	EP	0 563 296	B1	Ixsys, Inc.	03-17-1999		

Examiner	Date	
Signature	Considered	
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#### COPY FROM PARENT

С	omplete if Known		
Application Number	-08/769,062-Unassigned		
Filing Date	December 18, 1996 UNOUS PANED		
First Named Inventor	Phillip A. Patten		
Group Art Unit	1634		
Examiner Name	Zitomer, S.		
Attorney Docket Number	02-020500US 02-020522US		

	СВ	EP	0 552 266	B1	The Wellcome Foundation LTD.	01-19-2000
	CC	EP	0 397 463	A2	Berlex Laboratories	11-14-1990
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	СК	wo	94/11496	A1	IXSYS, Inc	05-26-1994
	CL	wo	97/46670	A1	Masssachsetts Institute of Technology	12-11-1997
	СМ	wo	99/29902	A1	California Institute of Technology	06-17-1999

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Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	τ
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	CQ	CARTER "Improved Oligonucleotide-Directed Mutagenesis Usinf M13 Vectors." <i>Methods of Enzymology</i> 154:382-403 (1985)	
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Examiner Date Signature Considered

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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STENT & TO	Complete if Known				
GIH	Application Number	-08/769,062 Unassigned.			
	Filing Date	-December 18, 1996 UNOSSIGNED			
	First Named Inventor	Phillip A. Patt n			
! <del></del>	Group Art Unit	1634			
IT	Examiner Name	Zitomer, S.			
Y)	Attorney Docket Number	02-020500US 02-020522US			

CU	FULLEN ET AL. "Genetic Algorithms and Recursive Ensemble Mutagenesis in Protein Engineering." Complex.Inrt.94, from website (1992)	
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DF	LOWNAM ET AL. "Affiniy Maturation of Human Growth Hormone by Monavalent Phage Display." J. Mol. Biol. 234:654-578 (1993)	
DG	MAJUMDER "Ligation-free gene synthesis by PCR: synthesis and mutagenesis at multiple loci of a chimeric gene encoding OmpA signal peptide and hirudin." <i>Gene</i> 110(1):89-94 (1992)	
DH	MERYHANS ET AL. "DNA recombination during PCR." <i>Nuc Acids.Res.</i> 18(7):1687-1691 (1990)	
DI	MICHAEL "Thremostable Ligase-Medicated Incorporation of Mutagenic Oligonucleotides During PCR Amplification." Meth. In Mol Biol. 67:189-195 (1997)	
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DO	SANDHU ET AL. "Dual Asymmetric PCR: One-Step Construction of Synthetic Genes."  Biotechniques 12)01):14-16 (1992)	

Examiner	,	Date	
Signature		Considered	

<sup>\*</sup>EXAMINER: Initial if refer nce considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

## COPY FROM PARENT,

	<i>≿</i> 1 ·	
	C	omplete if Known
T	A Application Number	-08/769,062 UNOSSIGNED
-	Filing Date	December 18, 1996 Massand
	First Named Inventor	Phillip A. Patten
	Group Art Unit	1634
	Examiner Name	Zitomer, S.
	Attorney Docket Number	02 020500US-02-020522US

DP	SHI ET AL "Rapid PCR Construction of a Gene Cotaining Lym-1 Antibody Variable Regions."   PCS Meth. & Appl. 3:46-52 (1993)
DQ	SHULDINER ET AL. "Hybrid DNA artifact from PCR of closely related target sequences."  Nus. Acids Res. 17(11):4409 (1989)
DR	SMITH ET AL. "Localized sex in Bacteria." Nature 349:29-31 (1991)
DS	Statutory Declaration by Mae Li Gan No. 703264
DU	Statutory Declaration by Ruth Bird No. 703264
DV	STEMMER ET AL. "A 20-Minute Ethidium Bromide High-slat Extraction Protocol for Pasmid DNA." Biotechniques 10(6):726 (1991)
DW	STEMMER ET AL. "Enzymatic Inverse PCR– A Restriction Cite Independent, Single-Fragment Method for High-Efficiency, Site-Directed Mutagenesis." Biotechniques 13(2):214. (1992)
DX	STEMMER ET AL. (1991) R342 "Expression of Antibody By Fragments Specific for a Heavy Metal Chelate (indium EDTA) in E-Coli." J. Cell Biochem 217
DY	STEMMER ET AL. "Increased Antibody Expression for Escherichia-Coli Through Wobble- Base Library Mutagenesis by Enzymatic Inverse PCR." Gene 123(1):1-7. (1993)
DZ	WU ET AL. "Allale-specific enzymatic amplification of β-globin genomis DNA for diagnosis of sickle cell anema." Proc. Natl. Acad. Sci Vol 86:2757-2760. (1999)
EA	ZOLLER & SMITH "Oligonucleotide-Directed Mutagenesis: A Simple Method using Two Oligonucleotide Primers and a Single-Stranded DNA Template." Methods in Enzymology 154:329-347 (1987)

Examiner	Date	
Signature	Considered	

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(Modified) PTO/SB/08A-B (10-96) Approved for use through 10/31/99. OMB 0651-0031

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#### **COPY FROM PARENT**

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RADINARY	Complete if Known
Application Number	<del>08,769,062</del> Unassigned
Filing Date	December 18, 1996 Was Ango
First Named Inventor	Phillip A. Patten
Group Art Unit	1634
Examiner Name	Zitomer, S.
Attorney Docket Number	r 02 020500US 07-0205 22US

	г	U.S. Patent Doo	cument	S. PATENT DOCUMENTS  Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
Examiner Initials	Cite No.	Number	Kind Code (if known)			
	AA	5,665,859		Wallach et al.	09-09-1997	
	AB	5,741,694		Hasrtup et al.	04-21-1998	
<del></del>	AC	5 750 373		Garrard et al	05-12-1998	,
	AD	5,427,930	1	Birkenmeyer et al.	06-27-1995	
	AE	5,792,607		Backman et al.	08-11-1998	

		Fo	oreign Patent Docu		N PATENT DOCUMEN	Date of Publication	Pages, Columns, Lines,	1 -
Examiner Initials	Cite No.	Office	Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	Ľ
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		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	<u></u>
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Examiner	Date	
Signature	Considered	

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